

R E M A R K S

Careful consideration has been given to the Official Action of August 15, 2006, and reconsideration of the application as amended is respectfully requested.

Specification

The specification has been amended to delete the reference to the claims in the specification.

The specification has also been amended to make reference to Figs. 4a and 4b as requested.

Claim Objections

Claims 1, 7 and 10 have been objected to and appropriate amendatory action has been taken to relieve these claims of the objections which have been made.

Particular note is made of the amendment in Claim 1 to clarify the ratios of the blowing agent to additive gas.

Rejection under 35 U.S.C. 101

Claim 12 has been rejected under 35 U.S.C. 101 and the rejection is rendered moot by the cancellation of this claim. Serially the rejection of claim 12 under 35 U.S.C. 112 no longer is applicable.

Claim Rejections - 35 U.S.C. 103

Claims 1-7 and 9-12 are rejected under 35 U.S.C. 103 as being unpatentable over Applicants' acknowledged state of the art in view of Rotermund et al. U.S. Patent 5,965,231.

Claim 8 is rejected under 35 U.S.C. 103 as being unpatentable over applicants' acknowledged state of the art in view of Rotermund et al U.S. Patent 5,965,231 and further in view of Albouy U.S. Patent 6,624,208.

Argument Against the Rejection under 35 U.S.C. 103

In rejecting Claim 1 the Examiner considers that the range of blowing agent to additive gas is taught by the secondary reference. It is respectfully submitted that this is untrue.

Referring to the rejection of the claims under 35 U.S.C. 103, applicant respectfully disagrees with the Examiner that it would have been obvious to one of ordinary skill in the art to use the mixture of gases disclosed in the present invention based on the references cited by the Examiner.

It is acknowledged that it is known to use a mixture of blowing agent gas and additive gas as taught by the secondary reference in the foam layer of the product of the primary reference in order to provide improved insulation properties to the laminate.

Applicant does not agree that the range ratios set forth in claim 1, i.e. 50 parts by weight of blowing agent gas to 1 part by weight of additive gas to 400 parts by weight of blowing agent gas to 1 part in weight of additive gas is known from the references cited by the Examiner.

U.S. Patent 5,965,231 discloses using cyclopentane and argon in a ratio from 1:99 to 95:5 percent by volume. This is not within the claimed range.

To make this more clear, we have converted the ratios in the present invention from percent by weight to percent by volume and thereby made the ratios easier to compare with the ratios disclosed in U.S. 5,965,231.

Such a conversion leads us to the following: when the molar weight of argon is 39.5 g/mol; and the molar weight of cyclopentane (C_5H_{10}) is 70.1 g/mol the ratios in percent by

weight are as follows:

Argon $50 \text{ g} \times 39.5 \text{ g/mol} / 70.1 \text{ g/mol} : 1 \text{ g} \approx 28 : 1$

Cyclopentane $400 \text{ g} \times 39.5 \text{ g/mol} / 70.1 \text{ g/mol} : 1 \text{ g} \approx 225 : 1$

These values show that the ratio from 1:99 to 95:5 percent by volume, which is disclosed in U.S. 5,965,231, does not include the ratios claimed in the present invention, - quite the contrary.

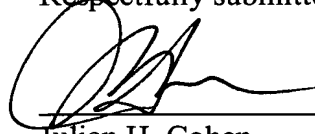
Therefore, it is not known from U.S. 5,965,231 to use cyclopentane and argon in a ratio from 50:1 to 400:1 percent by weight equivalent to a ratio from 28:1 to 225:1 percent by volume and it is further not known to use gases comprising at least one blowing-agent gas and at least one additive gas in this ratio.

Since the ratio given in the present invention is not disclosed in the state of the art and in U.S. 5,965,231 cited by the Examiner (rather on the contrary), it is submitted that nothing would lead one skilled in the art to use exactly this ratio between blowing-agent gas (cyclopentane) and additive gas (argon) to arrive at the present invention. Therefore, it is not obvious to one of ordinary skill in the art to use a mixture of gases as the blowing agents/additive as taught by the secondary reference in the foam layer of the product of the primary reference in order to provide improved insulation properties to the laminate.

Conclusion

By reasons the above action and comments it is respectfully submitted that the claims in the application is now amended are in allowable condition and favorable reconsideration is earnestly solicited.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Julian H. Cohen', is written over a horizontal line.

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